REMARKS

Claims 1-7 were pending at the time of the Office Action. In this Amendment, claims 5 and 7 have been canceled, and claim 1 has been amended to clarify subject matter thereof. Support is found in, for example, paragraphs [0063]-[0069] of the application-as-published, US 2008/0037822. Care has been exercised not to introduce new matter. Claims 1-4 and 6 are currently pending for examination, of which claim 1 is independent.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Claims 1 and 7 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hsu et al. (US 7,263,119, hereinafter "Hsu"). The rejection is respectfully traversed for the following reasons.

Hsu fails to disclose limitations of claim 1 regarding "if the modulation scheme of the received signal is the first modulation scheme, said selector outputs the plurality of constants stored in the constant storage to the plurality of multipliers to select the signal received by said receiver, and if the modulation scheme of the received signal is the second modulation scheme, said selector outputs the plurality of coefficients stored in the storage to the plurality of multipliers to select the signal on which the equalization processing has been performed."

As disclosed in FIG. 11, illustrating one example of what is recited in claim 1, the switching unit 76 switches the signal to be outputted to the multiplier 34, based on a selection signal 212. That is, when informed by the selection signal 212 that the modulation scheme is the PSK modulation, the switching unit 76 selects an output from the constant storage 38 and then outputs it to the multiplier 34. On the other hand, when informed by the selection signal 212 that the modulation scheme is the CCK modulation, the switching unit 76 selects an output from the storage 32 and outputs it to the multiplier 34. If the modulation scheme is the PSK modulation,

the output from the summation unit 36 will be outputted to the despread unit 16. If the modulation scheme is the CCK modulation, it will be outputted to the second equalization unit 22. According to the present embodiment, the operation is done under the same timing in the either case where the equalization processing is executed or not executed, so that the circuit can be designed under a single timing. Since the circuit design can be made under the single timing, the operation can be stabilized. (See paragraphs [0063]-[0069] of the application-as-published)

Hsu purports to improve receiver performance with respect to CCK code symbol modulation by selectively decoding one or more subsymbols of modulated symbols. To this end, Hsu's decision feedback equalizer (DFE) 160 employs feed forward processing to ensure that a received, coded symbol modulated baseband signal possesses the minimum phase characteristic to permit symbol demodulation, and employs decision feedback analysis to mitigate inter-symbol and inter-chip interference produced in part by the noise enhancing effects of such feed forward processing. **Hsu's DFE 160, however, neither identifies the modulation scheme of the received symbol, nor selects an output signal between the received symbol and an equalization-performed signal.** In contrast, claim 1 requires said "selector" to "output the plurality of constants stored in the constant storage to the plurality of multipliers **to select the signal received by said receiver, if the modulation scheme of the received signal is the first modulation scheme,** and to "output the plurality of coefficients stored in the storage to the plurality of multipliers to **select the signal on which the equalization processing has been performed, if the modulation scheme of the received signal is the second modulation scheme.**"

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference,

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), based on the foregoing, it is submitted that Hsu does not anticipate claim 1 and claims dependent thereupon. Thus, claim 1 and claims dependent thereupon have novelty over Hsu.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu in view of Ueda (US 5,787,118, hereinafter "Ueda"). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu in view of Umemoto et al. (US 5,450,442, hereinafter "Umemoto"). Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu in view of Gurcan (US 4,985,902, hereinafter "Gurcan"). Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsu in view of Hu et al. (US 7,187,730, hereinafter "Hu"). The rejections are respectfully traversed for the following reasons.

As addressed above, Hsu fails to disclose the limitations of claim 1 regarding "if the modulation scheme of the received signal is the first modulation scheme, said selector outputs the plurality of constants stored in the constant storage to the plurality of multipliers to select the signal received by said receiver, and if the modulation scheme of the received signal is the second modulation scheme, said selector outputs the plurality of coefficients stored in the storage to the plurality of multipliers to select the signal on which the equalization processing has been performed."

Ueda's adaptive equalizer performs two types of equalizing process on the received signal by using the decision feedback adaptive equalizer 41 and the linear adaptive equalizer 42. One of the outputs of the decision feedback adaptive equalizer 41 and the linear adaptive equalizer 42 is selected depending upon the result of the comparison between the error value of the decision feedback adaptive equalizer 41 and the error value of the linear adaptive equalizer

7

42. Ueda, however, neither identifies the modulation scheme of the received signal, nor selects an output signal between the received signal and the equalized signals (output signals of the decision feedback adaptive equalizer 41 and the linear adaptive equalizer 42). In addition, Umemoto, which was cited for the measurement unit, Gurcan, which was cited for the plurality of storages, and Hu, which was cited for the demodulation unit, fail to cure deficiencies of Hsu and Ueda. Therefore, the combination of Hsu, Ueda, Umemoto, Gurcan and Hu, at most, results in an equalizer of which output does not change depending upon a modulation scheme (type).

Therefore, claim 1 and claims dependent thereupon are patentable over the combination of Hsu, Ueda, Umemoto, Gurcan and Hu, because the combination fails to disclose the limitations of claim 1 regarding "if the modulation scheme of the received signal is the first modulation scheme, said selector outputs the plurality of constants stored in the constant storage to the plurality of multipliers to select the signal received by said receiver, and if the modulation scheme of the received signal is the second modulation scheme, said selector outputs the plurality of coefficients stored in the storage to the plurality of multipliers to select the signal on which the equalization processing has been performed."

Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

Hosang Lee
Registration No. L00,295

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 HL:idw
Facsimile: 202.756.8087
Date: September 29, 2009

Please recognize our Customer No. 20277 as our correspondence address.

9